

PIERS IN ARCHITECTURE.

Although the bulk or breadth and thickness of piers must depend in a great measure upon the solidity required for the building and the weight they have to support, yet in order to secure architectural effect the breadth of the piers should never be much less than one-third of that of the arches, supposing the latter to be open ones, otherwise, says the London Builder, the effect will be meagre and deficient in solidity of appearance. And in architecture, excess of solidity, even approaching to heaviness, is generally a lesser defect than the contrary one. Much also depends not merely upon the width, but the proportions of the arches themselves; for if very wide, or less than twice their width in height, greater breadth is required in the piers than when the openings between them are of lofty or narrow proportion. In some external arcades or piazzas the piers are exceedingly narrow or slender compared with the arches, so much so as to be little more than square or insulated pilasters with arches springing from them. It would be better, therefore, in similar cases to treat them altogether as such, converting their impost into pilaster or antæ caps. Piers are frequently decorated with either pilaster or engaged columns, in which case their breadth must be such that the archivolt moldings of the arches will fill up the space between the openings and the columns. In many instances columns are substituted for piers, placed either

singly or in pairs, and the arches spring either immediately from their capitals or from an entablature over them. There are again many examples in which both piers and a lesser Order or Sub-order of columns are employed, the latter being insulated on each side of the pier, and their entablature forming the impost from which the arches spring. Palladio's Basilica, or Pallazzo di Ragione, at Vicenza, affords an example of the kind, in which the faces of the piers themselves consist of a larger Order in half columns, so that the whole composition resembles a series of what are termed arched Venetian windows, entirely filling up the spaces between the large columns. Besides these and other modes of decoration, niches are occasionally introduced as ornaments to piers.

Never use iron dowels with marble; they will rust and injure the marble. Galvanized iron is better, but copper is best of all. It is more expensive, but the work will stand. A very good dowel may be made by using lead or copper pipe, and filling it with melted sulphur.

In lettering or working granite you will find that your tools will hold an edge better if you dip the cutting edge into turpentine occasionally. Keep a dish with some turpentine in it in a handy position, so that you can dip your tools in after every few blows. You will find this plan will enable you to do better work.

CREDIT VALLEY BROWN STONE

From Carroll & Vick's No. 6 Quarry, Credit Forks, Ont.

SANDSTONE, fine grained, reddish brown. Contains quartz, and a little felspar and mica. The stone is in beds of four feet and under, and can be handled in pieces up to five tons. Quarry 300 yards from Railway.

Specimen.	Section under Pressure	Height.	Crushing Load.	Crushing Stress per sq. in.	Average Crushing Stress per Square Inch
	Ins.	Ins.	Pds.	Pds.	Pds.
A
B	2 7/8 x 3	2 7/8	131,000	15,188	
C	2 15/16 x 3	2 7/8	130,000	14,751	
D	3 x 3	2 7/8	133,000	14,777	14,905

14,905 pounds is the average crushing strength per square inch of our Credit Valley Brown Stone.

The highest standard of test attained by any pure Sandstone in America.

IN confirmation of the facts above stated, we have pleasure in directing your attention to the accompanying table, showing the result of the test of our stone, in connection with the series of tests of building stones conducted in 1892 at the School of Practical Science, Toronto, under the direction of a committee of the Ontario Association of Architects.

By referring to the results of the tests above mentioned, it will be seen that the average crushing stress of the majority of Canadian and American sandstones is far below that of ours, the difference in our favor ranging from 75 to 50 per cent.

The Credit Valley Brown Stone, owing to its modest tone, harmonizes beautifully with red or cream colored brick.

It has been reported that there is difficulty in obtaining Credit Valley Brown Stone. To correct this mistaken notion, we wish to state to architects and the public that we have a large quantity of stone ready to ship on the shortest notice, which can be followed up with an unlimited supply. Last year we made extensive additions to our plant and opened up new quarries and mines, and will supply promptly all orders given to us or our agents.

CARROLL, VICK & CO.

Quarries: Credit Forks, Ont. Office: 84 Adelaide St. West, TORONTO.

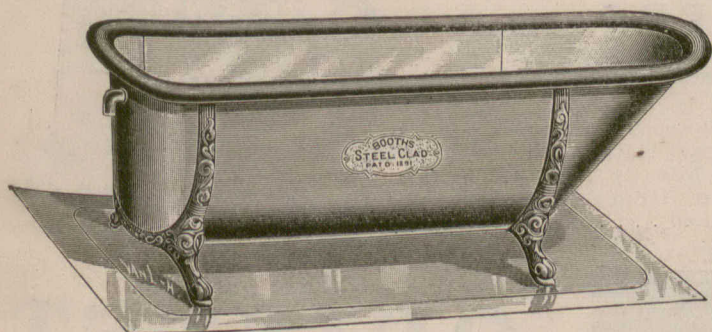
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